212 Locust St. Suite D Santa Cruz, CA 95060 – 831 420 5200

05/26/09

RE: Current 303d Listing Proposal

Dear Mr. Briggs,

Please accept the following comments with regard to the Central Coast RWQCB's current 303d listing proposal.

Lower Newell pH Listing Decision:

Our review of the data used to support this listing does not indicate that there is cause for listing. The average pH values for lower Newell Creek are as follows:

Rancho Rio	7.5
Below Dam	7.65
Glen Arbor Bridge	7.37

These values are comparable to the other pH data collected by the City, as well as the data collected by Santa Cruz County, the RWQCB and the Coastal Watershed Council for other watersheds in the region. While there may be a seasonal trend of increasing pH in the summer time due to algal growth in the watershed, the data utilized to support the listing does not clearly show any impairment.

San Lorenzo River (SLR) and Tributary Chlorpyrifos, Chlordane and PCB Listing Decisions:

For a number of reasons, it also appears that listing of the SLR and tributaries for these contaminants should not occur until more data has been collected which would refine the geographic scope of the problem and levels of toxicity relative to the numerous beneficial uses designated for this watershed. Among the more specific reasons for this are the following:

Data quality
The Chlorpyrifos data shows 2 detections in each the SLR lagoon at Laurel Street and in a tributary to the lagoon, Branciforte Creek at Water Street. Upstream of the lagoon there is one detection (in 2 samplings) at Crossing Street and two detections in Zayante Creek. While it is apparent that there is Chlorpyrifos in these stream reaches, there is insufficient data to support

listing the entire 27 miles of the SLR – especially when you consider that there have been no detections upstream of the Zayante confluence with the SLR. That said, it is unclear why Chlorpyrifos is detected at the Zayante site, but not at the Big Trees site immediately downstream. This may be due to the limited number of samples and the fact that most of the detections are very close to the detection limit, but regardless of the cause, illustrates the need for more a more rigorous sampling effort before any listing occurs. Among other things, we would like to see data that explores the seeming disappearance of Chlorpyrifos downstream from Zayante Creek at Big Trees, as well as confirmation of the very limited data for the Crossing Street site.

Lack of ongoing sources:
It is notable that all of the contaminants in question bind strongly to soil. Given that most of the sample data supporting the listing proposal was collected during periods when there was likely elevated turbidity, there is a clear nexus with erosion and legacy contaminants which are bound to sediment which is then being transported to stream channels (for instance – in April 2006 there were numerous landslides due to the unseasonably wet spring, which may have increased mobilization of legacy pesticides which were then detected in the May 2006 sampling effort). Therefore – given that there are likely no remaining identifiable legitimate sources of these contaminants in the watershed, perhaps a more practical vehicle for reduction of this limited impairment is successful implementation of the existing sediment TMDL and development of turbidity TMDLS for the SLR and appropriate tributaries. Given the relatively low levels of contamination, the sparse nature of the dataset, the lack of apparent ongoing sources of the contaminants, the already cumbersome TMDL process, and the crisis-level economic environment, new listings for any of these contaminants seems ill-advised.

Context of the listing to the MUN beneficial use:
While we acknowledge that any degradation of beneficial uses should be addressed and that presence of any of these contaminants in our watersheds is unfortunate, it would be useful to make clear in your process that the levels of detection of the various chemicals are extremely low – especially when compared to drinking water Maximum Contaminant Levels (MCLs) - and even drinking water Public Health Goals (PHGs) which are generally more protective of water quality than MCLs. Additionally, conventional drinking water treatment technology (i.e. carbon) effectively removes the contaminants of concern here.

Obviously if the scope of the contamination (be it Chlorpyrifos, Chlordane or PCBs) is further defined, and it is determined that the listings are warranted in the future, we would be supportive of doing so. However, until that time, we are supportive of the Board staff's decision not to list the SLR for Chlordane and PCBs and recommend the decision regarding Chlorpyrifos be reassessed.

SLR and Tributary Turbidity Listing Decisions:

The dataset used to support the listing decision is extremely limited in its ability to meaningfully describe any turbidity trends. While we appreciate that listings are not proceeding without such meaningful data, we are concerned that (among other things) a) the substantial data the City has collected on Newell Creek and the mainstem SLR were not referenced in this endeavor – being that it represents the only multi-year 15-minute dataset that we are aware of in this watershed (and which we send to the RWQCB on an annual basis), b) that "absence of evidence is not evidence of absence", and c) that the listing process is proceeding with (apparently) little regard for the MUN beneficial use. Specifically with regard to Newell Creek, the decision to not list is entirely unprotective of the MUN beneficial use, as the only data referred to is the historic Santa

Cruz County data which is of both low resolution and geographically removed from the area (i.e. downstream) where such data would yield any meaningful information regarding the MUN beneficial use. As a general statement, the turbidity listings seem particularly focused on cold water fisheries impacts. While it is true that turbidity can have impacts on feeding and respiration of various aquatic organisms, this is an emerging area of fisheries research. There is a large body of information on drinking water impacts from elevated turbidity which might also be referenced in this endeavor. Further with regard to the fisheries impacts, extended durations of elevated turbidity are frequently observed on the mainstem SLR – particularly in late winter. Given that outmigrating smolts (perhaps the most critical life phase for special-status salmonids) often rear in the bigger mainstem pools and must all pass through the mainstem en route to the ocean, careful analysis of all available turbidity data seems especially critical at this time.

We are aware that limited additional high resolution monitoring is also currently being conducted on SLR tributaries by Santa Cruz County and hope that you will prioritize turbidity listings in your next 303d listing process as more data becomes available to you.

Liddell Creek Turbidity Listing Decision:

Liddell Creek provides a significant portion of the City of Santa Cruz's water supply, especially in drought years when this karst-fed stream has relatively greater flow than the other small watersheds in the Santa Cruz Mountains. Similar to other cases mentioned previously in these comments, the data used for assessment of Liddell Creek is unresponsive to the MUN beneficial use both because of the sample site location and because of its coarse nature. The City has several years of 15-minute turbidity data (as well as suspended sediment, bedload sediment, flow, general physical chemistry, sediment x-ray diffraction, isotope, and other data) on Liddell Spring – one of the primary tributaries of Liddell Creek and the only reach of the watershed truly befitting of the MUN beneficial use designation.

We have seen increasingly chronic turbidity excursions at Liddell Spring – with recent data collection showing a clear correlation with disturbance related to mining activities in the upper watershed. Again, full review of all available data and its relation to the relevant beneficial uses will enable a more thoughtful listing approach for this creek in the future.

SLR and Tributary Temperature Listing Decision:

Like the decision regarding turbidity listings, the decisions regarding temperature listings are being made with incomplete information. The City has collected 30-minute temperature data at numerous locations throughout the SLR watershed as part of its ongoing Endangered Species Act Section 10 permit work with DFG and NOAA – NMFS. This data clearly shows routine exceedances of coho salmon temperature tolerance at numerous locations in the watershed.

We understand that – as the southernmost stream in the extent of coho salmon range - the SLR is a primary focus of the current NOAA – NMFS coho recovery process. Therefore, it (again) seems advisable that the RWQCB consider all data available before making this listing decision and that – when doing so - the Board consider the SLR's important role in coho recovery.

Majors Creek Listing Decisions:

Majors Creek is incorrectly identified as being in Monterey County. Given the site descriptions and the data sources, it is obviously in Santa Cruz County. This is a City of Santa Cruz water source and does provide limited habitat for steelhead trout, California red-legged frog and

possibly tidewater goby in the lower reaches of the stream. Though it was not reviewed as part of the listing process, the City has temperature, suspended sediment, bedload sediment, fisheries habitat, fisheries population, miscellaneous general physical chemistry, and other data for Majors Creek. Again, careful consideration of all available data and review within the context of the MUN and COLD beneficial uses should be conducted as part of this listing process.

Conclusion:

It is an unfortunate oversight that there appears to have been no use of any drinking water purveyor data in the current listing process. Water purveyors are required to routinely monitor their raw water sources (and often the aquatic resources that are affected by their operations) and often have very rigorous, long term datasets, as well as local knowledge of the watersheds and their respective water quality dynamics.

That said, we appreciate the enormity of your task in this listing process. Staff may very well have been unaware of many of the issues which we have brought up, and we understand that you have a very unwieldy (yet important) undertaking in your responsibility. All other comments aside, there is a noticeable increase in the rigor of the current listing process over previous years.

Thank you for consideration of our comments. We assume that there will be a future opportunity for the public to weigh in on any new listing decisions – should they arise from the current review process. Please do not hesitate to contact me if we can be of any further assistance in enabling a successful listing process.

Sincerely,

Digitally signed by Chris Berry
DN: cn=Chris Berry, o=City of Santa Cruz, ou=Water, email=cberry@ci.santa-cruz.ca.us, c=US
Date: 2009.05.26 15:35:04 -07'00'

Chris Berry –
Water Resources Manager

cc: John Ricker, Akin Babatola, Steve Wolfman, Jon Ambrose, read file (by email)